according to the condition of the animal, and a small quantity of salt always being mixed with it. For cattle which are inclined to scour, if fed on cactus, an occasional feed of dry grass, or a mixture of dry grass with cactus is useful.

2. It has been found that if the fodder is carefully prepared, and the cattle are properly tended and watched, they cannot only be kept alive on cactus fodder, but will steadily improve in condition on it. Buffaloes will also eat cactus fodder readily, and the yield of milk generally improves after they have been fed on it for a few days.

APPENDIX XI

Policy to be observed in regard to opening cattle camps during scarcity or famine, and methods of management

From a purely economic point of view it is doubtful whether the opening of cattle camps during a year of scarcity or famine with a view to conserving as many as possible of the cattle required for agricultural purposes can ever achieve results which are at all commensurate with the risks and trouble which such camps inevitably involve. Unless opened on a very large scale, which would be beyond the powers of the district officers to control, and would tax the available supplies of fodder most severely, the actual number of cattle saved in such camps is always a mere fraction of the number required for cultivation in any district, while the risks of loss from rinderpest or other epidemic diseases are serious. However, as a matter of policy, it is often a good thing to open one or two cattle camps in a district during a year of scarcity or famine, especially if it is desired to encourge the use of any emergency fodder such as cactus, for which purpose cattle camps can be used to demonstrate the methods of preparing such fodder and the advantages which it possesses. As far as possible cattle camps, if opened, should be financed by charitable funds and managed with the assistance of non-official committees.

2. The two methods which have hitherto been followed in the management of cattle camps are as follows :—

(*a*) Owners who wish to preserve their cattle are allowed to bring them to the camps on condition that they themselves stay at the camp to attend them, or provide a servant to do so. The site of the camp must be selected near a good supply of water, and if grass is the main fodder to be used, in the immediate vicinity of a railway station. The manager should generally be a Veterinary Surgeon, or an Agricultural Graduate with veterinary experience, who will require clerical staff in accordance with the actual size of the camp. No menial establishment should be required, as the owners of the cattle or their servants are expected to do all menial work of the camp. The manager will be responsible for the general management of the camp and the maintenance of the accounts. At the end of the scarcity or famine, the cattle are taken back by their owners on payment of the total actual cost per head for the period during which they have been maintained in the camp.

(*b*) The other method of management which was tried with fair success in the Deccan during 1918-19 and 1920-21 especially to demonstrate the advantages of cactus fodder, is to purchase the cattle when they are being sold cheap, and to sell them after the break of the next monsoon. For camps managed on these lines the following points should be observed :—

(*i*) the unit camp should consist of not less than 1,500 animals;

(*ii*) for this unit camp the following establishment will be necessary :—

(*a*) a manager, either an Agricultural Graduate or a Veterinary Assistant on Rs. 120 to Rs. 200 per mensem ;

(*b*) one clerk on Rs. 50 per mensem, who should be deputed from the Revenue Department, if possible;

(*c*) one mukadam for 200 animals or eight for the unit camp at Rs. 25 each per mensem ;

(*d*) one herdsman for each 50 animals or thirty for the unit camp at Rs. 20 each per mensem ;

(*e*) one sweeper for each 100 animals, fifteen for the unit camp, to be provided from famine labour, *i.e.*, given dole specially for the purpose.

(*iii*) If cactus is used as the main fodder, then the following must be provided from famine labour for each unit camp :—

(*a*) 105 burners, three to each furnace.

(*b*) 15 cutters, one to each 100 animals.

(*c*) 15 carriers, one to each 100 animals.

(*d*) 30 men working chaff cutters, 4 to each 200 animals.

For fuller particulars, *vide* Bulletin No. 97 of 1920, " Prickly Pear as a Cattle Food " issued by the Department of Agriculture, Bombay.

(*iv*) The decision as to the establishment of such camps must rest with the Collector, but once the decision is reached the management should be undertaken by the Agricultural Department on a budget prepared by the latter and approved by the Collector. The budget having been approved, the money both for the opeing of the camp, the purchase of cattle, and the current expenditure should be placed at the disposal of the officer designated as manager by the Director of Agriculture.

(*v*) For the successful working of cattle camps they should be established early in the scarcity or famine at least by the beginning of December. Young cattle (with the teeth perfect) only should be purchased as experience has shown that emaciated older animals rarely recover properly. Cattle should be purchased in any case, if possible, before serious emaciation has taken place.

APPENDIX XII

(*Vide* sections 225 and 234 of the Code)

Policy to be followed in making advances of takavi during scarcity or famine

The following general instructions are approved by Government for the guidance of district officers in making advances of takavi during scarcity or famine.

1. Experience gained during the scarcities and famines which have occurred during recent years has gone to show that the policy of making advances of takavi on a liberal scale, as a method of relief of distress in affected districts, which was laid down in the previous Famine Relief Code, and repeated on pages 32 and 33 of the Takavi Manual, is apt to lead to results which are not in the real interest of the borrowers themselves in some cases, and that in view of the financial responsibilities imposed on Government by the reformed constitution there is now need for some revision of the views hitherto held on the subject. It has generally been assumed that a liberal distribution of takavi at an early stage of the distress caused by scarcity or famine is one of the most effective and cheapest forms of relief available and that even if bad debts are incurred, the loss so entailed is likely to be far less serious than would have ensued if takavi had been restricted and gratuitous relief given on a larger scale or relief works opened which might not have been necessary if the people had been able to obtain takavi loans freely. Similarly for the protection of cattle the policy followed hitherto has been to import large quantities of fodder into affected areas and to advance takavi freely to cattle-owners to enable them to purchase it and thus keep their cattle alive through the period of scarcity or famine. It has also been assumed that by making liberal and prompt advances of takavi Government puts heart into the people, and by keeping money in circulation and giving opportunities for private works such as digging and improvement of wells, employment is provided for those who need it which would otherwise not be available.

2. Government are not even now prepared to assert that the assumptions on which the policy hitherto followed in respect of takavi as a form of relief is based are fallacious, or to deny that a liberal takavi policy can and should be adopted as a useful means of fighting scarcity and famine.

But in employing takavi as a means of famine relief a District Officer must carefully consider the general economic condition of the district in which he is serving. In districts where the cultivators generally are prosperous and have good credit, and which owing to their geographical situation are not liable to continual recurrences of bad seasons a liberal takavi policy is probably the soundest method of relieving distress. On the other hand, in districts where the people's credit is low, and which are liable to frequent failures of the monsoon, a more conservative policy in regard to takavi should be adopted, and the greatest care should be taken not to allow the cultivators to incur a burden of debt disproportionate to their assets, and beyond their capacity to repay within a reasonable period. Where it is feasible, loans on the joint-bond system for works such as dams across streams to hold up water either for irrigation or to raise the sub-soil water in adjoining wells, or for constructing a series of tals in sloping land on a hillside, or for any other purpose likely to be of real value to the community as a whole are preferable to any other form. Loans to individuals for digging new wells or deepening or cleaning out existing wells are of value both to the borrower and to the people to whom he can give employment, but there is always the risk that an adequate supply of water may not be tapped and unless the man's credit is sufficiently good to enable him to run the risk of failure, a loan for these purposes is of doubtful advantage to him. Loans for well-gear and fodder for the cattle required by holders of bagayat land who possess wells with good supply of water are always useful in time of scarcity and should be given freely. Loans for purpose of fodder alone to non-bagayat holders are of more doubtful value unless the borrower is a well-to-do man, whose cattle are worth preserving, or in tracts where it is essential to preserve breeds of cattle which are in danger of extinction or serious diminution unless fodder is made available by advances for loans for the purchase of it. Unless advances for purchase of fodder are made with care and discrimination it will often be found that the borrower has incurred a debt for the fodder